

$\Xi_c(2790)$

$I(J^P) = \frac{1}{2}(\frac{1}{2}^-)$ Status: ***

A peak seen in the $\Xi_c' \pi$ mass spectrum. The simplest assignment, based on the mass, width, and decay mode, is that this belongs in the same SU(4) multiplet as the $\Lambda(1405)$ and the $\Lambda_c(2595)^+$, but the spin and parity have not been measured.

NODE=B149

$\Xi_c(2790)$ MASSES

NODE=B149205

The masses are obtained from the mass-difference measurements that follow.

NODE=B149205

$\Xi_c(2790)^+$ MASS

VALUE (MeV)	DOCUMENT ID
2789.1 ± 3.2 OUR FIT	

NODE=B149M+
NODE=B149M+

$\Xi_c(2790)^0$ MASS

VALUE (MeV)	DOCUMENT ID
2791.8 ± 3.3 OUR FIT	

NODE=B149M0
NODE=B149M0

$\Xi_c(2790) - \Xi_c$ MASS DIFFERENCES

NODE=B149207

$m_{\Xi_c(2790)^+} - m_{\Xi_c^0}$

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
318.2 ± 3.2 OUR FIT				
$318.2 \pm 1.3 \pm 2.9$	18	CSORNA	01	CLEO $e^+ e^- \approx \gamma(4S)$

NODE=B149D+
NODE=B149D+

$m_{\Xi_c(2790)^0} - m_{\Xi_c^+}$

VALUE (MeV)	EVTS	DOCUMENT ID	TECN	COMMENT
324.0 ± 3.3 OUR FIT				
$324.0 \pm 1.3 \pm 3.0$	14	CSORNA	01	CLEO $e^+ e^- \approx \gamma(4S)$

NODE=B149D0
NODE=B149D0

$\Xi_c(2790)$ WIDTHS

NODE=B149210

$\Xi_c(2790)^+$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<15	90	CSORNA	01	CLEO $e^+ e^- \approx \gamma(4S)$

NODE=B149W+
NODE=B149W+

$\Xi_c(2790)^0$ WIDTH

VALUE (MeV)	CL%	DOCUMENT ID	TECN	COMMENT
<12	90	CSORNA	01	CLEO $e^+ e^- \approx \gamma(4S)$

NODE=B149W0
NODE=B149W0

$\Xi_c(2790)$ DECAY MODES

NODE=B149215; NODE=B149

Mode	Fraction (Γ_i/Γ)
$\Gamma_1 \quad \Xi_c' \pi$	seen

DESIG=1;OUR EST

$\Xi_c(2790)$ REFERENCES

CSORNA 01 PRL 86 4243 S.E. Csorna *et al.* (CLEO Collab.)

NODE=B149

REFID=48122